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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/792,252	03/03/2004	Gary Allen Olsen	4651.012	3972

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EXAMINER

FORTUNA, JOSE A

ART UNIT PAPER NUMBER

1731

DATE MAILED: 03/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/792,252

Applicant(s)

OLSEN ET AL.

Examiner

José A. Fortuna

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/3/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is vague and indefinite since the preamble recites a method of optimizing, however, the claim seems to be drawn to a method of recovering and therefore, it is unclear how and/or what part of the process optimizes the claimed operation. The last part of the claim recites the recovering of calcium carbonate and therefore, the optimization process is not positively claimed.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claim 9 is rejected under 35 U.S.C. 103(a) as being obvious over Hadzhiev et al., "On the suitability of carbonate slurry as a filler for papers" referred hereafter as Hadzhiev, alone or further in view of Bown et al., US Patent 5,244,542 or Wise, US Patent 5,643,415.

Hadzhiev teaches a process for obtaining high quality particulate calcium carbonate (CaCO_3) having sufficient size for use as paper filler comprising the steps of: (a) withdrawing from a Kraft pulp mill a mixture containing CaCO_3 (lime mud), said calcium carbonate is obtained by the addition of lime and/or calcium carbonate into the recausticizing cycle, see page 1: (b) treating the mixture, (c) recovering the treated mixture to form CaCO_3 particles, suitable as a paper filler (abstract) wherein the particles are finely dispersed and of sufficient size, average particle size, 72.5%, under 12 microns (pages 1 (3rd and 5th paragraph for Kraft pulp mill), 4, 5, especially, Fig. 4 and page 5, last paragraph). As for the particle size, in the alternative, it would have been obvious to further mill and fractionate the particles in the range of less than 12 microns to be suitable for use as filler which normally in the range of 2-5 microns. Hadzhiev fairly teaches the claimed invention except for carrying out step to remove contaminants contained in the mixture to thereby produce a treated mixture substantially free of contaminants and containing calcium carbonate. However, Hadzhiev teaches the general concept of preparing the CaCO_3 particles to high quality, i.e., brightness, size, etc., by milling, fractionation and bleaching the mixture to high brightness CaCO_3 of sufficient quality to be used as paper filler. Therefore, if there are contaminants in the mixture which are undesirable for paper filler, it would have been obvious to further treat the mixture to remove the contaminants from the mixture by well known steps such as washing, screening, etc. Moreover, Bown et al. or Wise teach/teaches that calcium carbonate particles for use as paper filler are passes through decontamination, separation process(es) to obtain particle size distribution within the claimed range i.e., below 12 μM . The particles normally have an average size particle of less than about 12 microns (see Bown et al. column 2, line 65 to column 3, line 15, which teach a range of 1-10

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microns or Wise column 2, lines 50-60 which teaches a range of 1.8-2.5 microns for high strength paper and about 2-5 microns for coatings for dull finish paper). It would have been obvious to modify the process of Hadzhiev by treating, decontaminating and/or screening the calcium carbonate to form particles with size less than about 12 microns for use as paper filler for high strength paper as taught by Bown et al. or Wise.

Claim 9 is rejected (2nd) under 35 U.S.C. 103(a) as being obvious over Hadzhiev in view of "Beneficial Use of Spent Calcium Hydroxide from Fruit Cold Storage Warehouses," hereafter referred as Report '97.

As for claim 9, the teaching of Hadzhiev is cited above. In another similar treating process for recovering CaCO_3 for use as paper filler or extender, Report '97 fairly teaches the steps of segregating the particulate CaCO_3 from the mixture, removing contaminants and treating the segregated CaCO_3 to form particles having average size less than 12 microns (2-3 microns with a maximum of 8 microns) (see pages 33-44). It would have been obvious to modify the process of Hadzhiev by subjecting the mixture to a segregating step to remove the particulate CaCO_3 from the mixture as taught by Report '97 above and further treating the mixture to size less than about 12 microns for use as paper filler for paper as taught by Report '97.

Conclusion

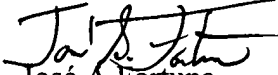
5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure in the art of "Optimization of operation of the recausticizing cycle in a pulp mill."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to José A. Fortuna whose telephone number is 571-272-1188. The examiner can normally be reached on 9:30-6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P. Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


José A Fortuna
Primary Examiner
Art Unit 1731

JAF